

Executive Summary

The National Association of State Fire Marshals (NASFM) formed the Partnership for Safer Buildings (the Partnership) to ensure a fair and objective answer to the following question: are our nation's model building codes sufficient to save lives and property from fire?

NASFM's mission is to protect human life, property and the environment from fire. The Partnership's work is based on this mission. Like NASFM, the Partnership's focus is life safety and public welfare. The Partnership also recognizes the importance of ensuring property protection by providing fire barriers and protection to the structural components of a building. The longer that a fire is contained, the greater the chances that people will be able to escape or be rescued, that firefighters will be able to avoid injury or death from building collapse, and that building operation can continue with little impact on public welfare.

The Partnership includes experts with decades of experience in fire protection engineering, fire and building code enforcement, public policy, architecture, building materials design and manufacturing, standards development, insurance and risk management, and academia. Biographical information on the members is included in Appendix B. Background on the Partnership's activities and minutes of its meetings are included within Appendix A.

To date, the Partnership has proceeded along three parallel courses:

- One team, the Codes Assessment Subcommittee, conducted a review of the fire protection provisions of the two newest national model building codes.¹ The subcommittee identified code requirements that are inadequate or deficient. Their reports are found in Appendix C.
- Guided by the findings from the first team, a second team (the On-Site Inspections Subcommittee) conducted non-regulatory inspections of several buildings that were built under the requirements of one of the existing regional model building codes. These buildings were chosen because a major fire in one of these occupancies—health care, assembly, and business—would likely result in significant loss of life and property. The Partnership recognizes that a small number of building inspections does not represent a scientific sample. But if unsafe conditions exist in occupancies known for their high levels of compliance with the codes, it is likely that significant unsafe conditions exist in other, less regulated occupancies. The sub-committee's most recent report and the meeting minutes are found in Appendix D.

¹ The Codes Assessment Subcommittee examined the 2000 edition of the International Code Council's *International Building Code*TM (IBC) and the newly released building code from the National Fire Protection Association, NFPA 5000TM, *Building Construction & Safety Code* (2003 edition).

- A third team, the Liaison Subcommittee, is sharing information with other government, scientific, commercial and academic entities that are conducting similar research, including those studying the collapse of the World Trade Center Towers. Correspondence and other information related to Liaison Subcommittee activities is contained in Appendix E.

The Partnership finds that:

- *Building codes must protect the lives of civilians and emergency responders and ensure public welfare through property protection.*
- *Proven technologies and methods exist to design and build buildings that are safe, but the building codes have been weakened by the elimination of redundant protective measures that provide superior safety. Unproven technologies, such as performance-based design, have been introduced into the codes.*
- *Critical fire protection features in buildings, such as firewalls, fire separations, and fire protective coatings are not properly maintained. Hospitals, nursing homes, schools, sports arenas, large retail facilities, and large multi-family residential buildings are of particular concern.*
- *The fire protection requirements in the new model building codes are significantly weaker than the requirements found in the older regional model building codes. There is no scientific or technical justification for many of the code changes that have been introduced.*
- *The model building code organizations have a responsibility and an obligation to take immediate steps to strengthen the fire protection requirements in their respective codes.*
- *Building code adoption and enforcement is not consistent throughout the United States.*

The American public should be alarmed by what we have found. The Partnership is submitting recommendations to the model building code organizations to correct the deficiencies that we have identified. We believe that most building owners, architects, engineers and contractors are concerned about building safety and that they will be willing to improve the building codes. But if the codes are not strengthened, Americans will die needlessly in fires and our nation's firefighters will face overwhelming dangers.

Preliminary Recommendations:

1. The Partnership should conduct additional inspections with a focus on health care facilities, schools, large arenas, and major office buildings. It is expected that the information gathered from these inspections will further support the need to strengthen the building codes.

2. The Partnership should be expanded to involve additional stakeholders who appreciate and can contribute to these important activities. NASFM has the unique ability to bring diverse groups together to solve complex fire safety problems in a serious and constructive way.
3. NASFM should alert state and local governments to the concerns and recommendations of the Partnership. State and local legislative bodies have the authority ability to strengthen the model building codes that they have adopted.
4. Through its representatives on the building and fire code technical committees, NASFM should immediately engage the building and fire code organizations in discussions to strengthen the codes. NASFM and the Partnership should submit code change proposals to the respective code organizations as soon as possible.
5. NASFM should alert state and local code enforcers to the findings and concerns of the Partnership.